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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,356	06/19/2001	Hans Ruscheweyh	SWR-0059	2922

23413 7590 03/04/2003

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EXAMINER

BUSHEY, CHARLES S

ART UNIT PAPER NUMBER

1724

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/884,356

Applicant(s)

RUSCHEWEYH ET AL.

Examiner

Scott Bushey

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is in direct response to applicant's clarification of the term "chamber" as it was apparently intended to be read in the claims. Specifically, in the amendment filed on January 13, 2003, on page 5 thereof, applicant states that the "chamber" as used by applicants in claim 1, is as defined by Webster's Dictionary, "an enclosed space; cavity".

This is in apparent contradiction to applicant's originally filed disclosure, which as shown by applicant's figures and recited at page 6, lines 16-19 of the instant specification, the second gas passes through channel (5), into chamber (13) and exits from chamber (13) through outlet openings (12). The originally filed disclosure does not speak of an enclosed space or cavity, nor are there any apparent valve or closure means associated with the chamber to render it into an enclosed condition. Therefore, while the originally filed disclosure appears to define the "chamber" structure as having the functionality of a "passage" arranged between the second gas feed line and the outlet openings from which the second gas is delivered into the apparatus for mixing with the first gas, applicant's clarification of the term "chamber" in the latest amendment provides a clear and distinct disconnect between the scope of that which is enabled

Art Unit: 1724

by the originally filed disclosure, and that which is claimed in light of the clarification by applicant.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As stated above, in view of applicant's clarification of the definition of the claimed "chamber", it is unclear as to what applicant intends to claim as the invention. Specifically, an enclosed space or cavity, as is apparently applicant's updated definition of the "chamber", as recited by the instant claims would be unable to provide the intended function, i.e., delivery of a second fluid into a first fluid stream for mixing of the fluids.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. This rejection is a direct result of applicant defining the claimed "chamber" as "an enclosed space; cavity", since such an *enclosed space or cavity*, would render the claimed apparatus incapable of performing the desired function, i.e., mixing of at least two fluids, one of which would have to issue from the so-called "chamber", which as applicant has stated, is enclosed.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1724

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, and 7-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either McCall (Figs. 1 and 4; col. 3, lines 13-18; col. 3, line 48 through col. 4, line 2) or Streiff et al (Figs. 2, 11d, and 12; col. 2, lines 27-29; col. 3, lines 1-6, and 17-25; col. 4, lines 34-36).

7. Claims 1-5, 8, and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Isahaya (Figs. 1 and 2).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Isahaya, McCall and Streiff et al, taken in view of USSR 1599067 A1.

Art Unit: 1724

Isahaya (Figs. 1 and 2), McCall (Figs. 1 and 4; col. 3, lines 13-18; col. 3, line 48 through col. 4, line 2), and Streiff et al (Figs. 2, 11d, and 12; col. 2, lines 27-29; col. 3, lines 1-6, and 17-25; col. 4, lines 34-36) each alone substantially teaches applicant's invention as recited by instant claim 6, except for the angle that the incorporated surface forms with the main gas flow direction being adjustable.

USSR 1599067 A1 (English Abstract; The Figure) disclose an apparatus similar to that of each of the alternative primary references, wherein the angle of the incorporated surface (5), which delivers a secondary fluid into the main gas flow through the apparatus, is adjustable as dictated by the properties of the main gas flow stream. It would have been obvious for an artisan at the time of the invention, to modify the structures of the incorporated surfaces of any one of the alternative primary references, to be of adjustable orientation within the main gas flow, in view of the Soviet reference, since such would allow for any one of the alternative primary reference apparati to be readily adaptable to main gas streams of varying flow velocity and/or viscosity, among other variable stream parameters.

#### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new grounds of rejection.

With respect to applicant's arguments that McCall, Streiff et al and Isahaya fail to anticipate leading edges around which the first fluid can freely move, such is not at all persuasive. McCall (12 in Fig. 1; 12c in Fig. 4), Streiff et al (46 in Fig. 11d), and Isahaya (Fig. 2) each clearly provide structure within a first fluid flow path for delivering a second fluid from a downstream side thereof to mix with the first fluid, the structures each having leading edges

Art Unit: 1724

around which the first fluid flows. The leading edges of each of the structures are also each oriented against the flow of the first fluid, as is evidenced by the fact that the first fluid must alter its flow direction to travel past the second fluid delivering structure.

With respect to the applicant's argument that the applied prior art fails to teach a chamber on the rear side of the structure, please note sections 1-4 above.

### *Conclusion*

12. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is (703) 308-3581. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Simmons can be reached on (703) 308-1972. The fax phone numbers for


Art Unit: 1724

the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Scott Bushey  
Primary Examiner  
Art Unit 1724

csb  
March 3, 2003

  
3-3-03